Date March 24, 2005

In the specification:

Please rewrite paragraph [0017] as follows:

[0017] In order to attain the objects, an invention according to claim 1 is an occludator comprising a lower bow-shaped part for mounting a lower jaw tooth mold, an upper bow-shaped part for mounting an upper jaw tooth mold, and right and left joints which connect the lower bow-shaped part and the upper bow-shaped part and enable a movement including an opening/closing movement and a lateral movement, characterized in that the joint comprises an artificial condyle which is detachably mounted on the lower bow-shaped part and protrudes upward and an artificial articular fossa which is detachably mounted on the upper bow-shaped part and is opposed to the artificial condyle from above, a contour of at least one of the artificial condyle and the artificial articular fossa is shaped according to a contour of are both identical in contour to the mandibular condyle or the maxillary fossa of a person whose impression has been obtained during the fabrication of the upper jaw tooth model.

## Please rewrite paragraph [0018] as follows:

[0018] Regarding the configuration according to claim 1, an invention according to claim 2 is also characterized in that the occludator comprises an elastic body for applying an urging force in a direction of bringing the lower bow-shaped part and the upper bow-shaped part relatively close to each other.

# Please rewrite paragraph [0020] as follows:

[0020] Regarding the configuration according to claim 1 or 2, an The invention according to claim 3 is also characterized in that the joint is constituted of an upper joint and a lower joint which are opposed to each other, the upper joint is constituted of an upper mounting member supported by the upper bow-shaped part, a maxillary fossa model, and first mounting means for detachably mounting the pedestal of the maxillary fossa model on the upper mounting member, and the lower joint is constituted of a lower mounting member fixed on the lower bow-shaped part, a

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mandibular condyle model, and second mounting means for detachably mounting the pedestal of the mandibular condyle model on the lower mounting member.

Please rewrite paragraph [0022] as follows:

[0022] Regarding the configuration according to claim-3, an The invention according to claim-4 is also characterized in that the first mounting means is constituted of a male screw part formed on the upper mounting member, a cylindrical member having a female screw formed in an inner surface, the female screw enabling to be screwed to the male screw, and an inner flange which is formed integrally with the cylindrical member, forms a hole permitting the passage of the maxillary fossa model, and can make contact with the periphery of the pedestal of the maxillary fossa model, and the periphery of the pedestal of the maxillary fossa model between the upper mounting member and the inner flange by screwing the female screw to the male screw.

Please rewrite paragraph [0024] as follows:

[0024] Regarding the configuration according to claim 3 or 4, an The invention according to claim-5 is also characterized in that the second mounting means is constituted of a male screw part formed on the lower mounting member, a cylindrical member having a female screw formed in an inner surface, the female screw enabling to be screwed to the male screw, and an inner flange which is formed integrally with the cylindrical member, forms a hole permitting the passage of the mandibular condyle model, and can make contact with the periphery of the pedestal of the mandibular condyle model, and the periphery of the pedestal of the mandibular condyle model is sandwiched between the lower mounting member and the inner flange by screwing the female screw to the male screw.

Please rewrite paragraph [0026] as follows:

[0026] Regarding the configuration according to claim 3 or 5, an <u>The</u> invention according to claim 6 is <u>further</u> characterized in that the first mounting means comprises a ring-shaped part which is formed on an end of the upper mounting

member and has an inner concave part permitting the insertion of the pedestal of the maxillary fossa model, and a fixing screw which ean laterally penetrate penetrates the ring-shaped part while being connected to the ring-shaped part by screwing, and has an end eapable of being screwed inward or in contact with screwed inside the pedestal from a part where the female screw is not formed on the side of the pedestal of the maxillary fossa model.

Please rewrite paragraph [0028] as follows:

[0028] Regarding the configuration according to claim 6, an The invention according to claim 7 is also characterized in that the pedestal in cross section and the concave part of the ring-shaped part are both polygonal, and the pedestal is so shaped as to be engaged with the concave part of the ring-shaped part.

Please rewrite paragraph [0030] as follows:

[0030] Regarding the configuration according to claim 3 or 4, an The invention according to claim 8 is further characterized in that the second mounting means comprises a ring-shaped part which is formed on an end of the lower mounting member and has an inner concave part permitting the insertion of the pedestal of the mandibular condyle model, and a fixing screw which ean laterally penetrate penetrates the ring-shaped part while being connected to the ring-shaped part by screwing, and has an end capable of being screwed inward screwed inside or in centact with the side of the pedestal from a part where the female screw is not formed on a side of the mandibular condyle model.

Please rewrite paragraph [0032] as follows:

[0032] Regarding the configuration according to claim 8, an Also the invention according to claim 9 is characterized in that the pedestal in cross section and the concave part of the ring-shaped part are both polygonal, and the pedestal is so shaped as to be engaged with the concave part of the ring-shaped part.

Please rewrite paragraph [0034] as follows:

[0034] Regarding the configuration according to any one of claims 3 to 9, an In addition, the invention according to claim 10 is characterized by further comprising upper positioning means for regulating the position of the pedestal of the maxillary fossa model relative to the upper mounting part.

Please rewrite paragraph [0036] as follows:

[0036] Regarding the configuration according to any one of claims 3 to 10, an The invention according to claim 11 is also characterized by further comprising lower positioning means for regulating the position of the pedestal of the mandibular condyle model relative to the lower mounting part.

Please rewrite paragraph [0038] as follows:

[0038] Regarding the configuration according to any one of claims 1 to 11, an The invention according to claim 12 is further characterized by further comprising position adjusting means for laterally adjusting the position of at least one of the artificial condyle and the artificial articular fossa.

Please rewrite paragraph [0040] as follows:

[0040] Regarding the configuration according to any one of claims 1 to 12, an The invention according to claim 13 is also characterized in that two or more pairs of the mandibular condyle model and the maxillary fossa model are provided, and a pair of the mandibular condyle model and the maxillary fossa model is used as the artificial condyle and the artificial articular fossa according to the shape of the temporomandibular joint of a person whose impression has been obtain during the fabrication of the upper jaw tooth model

Please rewrite paragraph [0042] as follows:

[0042] Regarding the configuration according to any one of claims 1 to 13, an The invention according to claim 14 is further characterized by further comprising

connecting parts on a pair of lateral positions in the occludator, the connecting parts connecting the face bow.

Please rewrite paragraph [0043] as follows:

[0043] An The invention according to claim 15 is also a face bow which is used for the occludator according to claim 14 and reproduces the positional relationship between a temporomandibular joint and an occlusion plane on the occludator, characterized in that the face bow comprises a face bow body having a pair of right and left legs stretching symmetrically, a connecting part which is provided on an end of each leg and can be connected to the connecting part of the occludator, and a nose piece which is supported by the face bow body and brought into contact with a hollow in the upper part of the nose of a patient, and the nose piece comprises a position adjusting mechanism capable of adjusting a position at least in the vertical direction and the longitudinal direction with respect to the face bow body,-the connecting part provided on the end of the leg is an ear rod which can be inserted into an external auditory meatus of a patient, the connecting part of the occludator is constituted of an insertion hole permitting insertion of the ear rod, the face bow body is made of a material permitting passage of an X-ray beam, and the face bow body comprises a marking member which is laterally opposed to a center of a mandibular condyle of a patient or a vicinity of the center in front of the ear rod and is made of a material not permitting passage of an X-ray beam, and a supporting member causing the leg to support the marking member.

Please rewrite paragraph [0045] as follows:

[0045] Regarding the configuration according to claim 15, an The invention according to claim 16 is also characterized in that the face bow body comprises a level.

Please rewrite paragraph [0047] as follows:

[0047] Regarding the configuration according to claim 15 or 16, an The invention according to claim 17 is further characterized in that the connecting part provided on

the end of the leg is an ear rod which can be inserted into an external auditory meatus of a patient, and the connecting part of the occludator is constituted of an insertion hole permitting the insertion of the ear rod the face bow comprises a face bow body having a pair of right and left legs stretching symmetrically, an ear rod which is provided on an end of the leg and can be inserted into an external auditory meatus of a patient, and a nose piece which is supported by the face bow body and brought into contact with a hollow on an upper part of a nose of a patient, the face bow further comprises a regulating mechanism for sliding the pair of right and left legs only in a lateral direction.

#### Please rewrite paragraph [0048] as follows:

[0048] An The invention of elaim-18 is also characterized in that the face bow body is made of a material permitting the passage of an X-ray beam, and the face bow body comprises a marking member which is laterally opposed to the center of a mandibular condyle of a patient or the vicinity of the center in front of the ear rod and is made of a material not permitting the passage of an X-ray beam, and a supporting member causing the leg to support the marking member

### Please rewrite paragraph [0049] as follows:

[0049] Further, in order to attain the objects, an invention according to claim 19 of the present invention provides an occlusion confirming system comprising characterized in that the system comprises a CT device for photographing a temporomandibular joint of a target person, a stereolithography machine for forming a solid model of the temporomandibular joint on the basis of three-dimensional image data of the temporomandibular joint specified by image information photographed by the CT device, and an occludator including a lower bow-shaped part for mounting a lower jaw tooth mold, an upper bow-shaped part for mounting an upper jaw tooth mold, and right and left joints for connecting the lower bow-shaped part and the upper bow-shaped part, characterized in that the joint comprises an artificial condyle which is mounted on the lower bow-shaped part and protrudes upward and an artificial articular fossa which is mounted on the upper bow-shaped

part and is opposed to the artificial condyle from above, the artificial condyle and the artificial fossa are each constituted of the solid model formed by the stereolithography machine, and the solid models of the artificial condyle and the artificial articular fossa are integrally formed in a separable manner at least one of the artificial condyle and the artificial condyle and the artificial articular fossa is constituted of the solid model formed by the stereolithography machine.

Please delete paragraphs [0051] to [0057].

Please rewrite paragraph [0058] as follows:

[0058] Regarding the configuration according to any one of claims 19 to 21, an The invention according to claim 22 is also characterized by further comprising an elastic body for applying an urging force in a direction of bringing the lower bow-shaped part and the upper bow-shaped part relatively close to each other

Please rewrite paragraph [0060] as follows.

[0060] Regarding the configuration according to any one of claims 19 to 22, an The invention according to claim 23 is also characterized in that the joint is constituted of an upper joint and a lower joint which are opposed to each other, the upper joint is constituted of an upper mounting member supported by the upper bow-shaped part, a maxillary fossa model, and first mounting means for detachably mounting the pedestal of the maxillary fossa model on the upper mounting member, and the lower joint is constituted of a lower mounting member fixed on the lower bow-shaped part, a mandibular condyle model, and second mounting means for detachably mounting the pedestal of the mandibular condyle model on the lower mounting member.

Please rewrite paragraph [0062] as follows.

[0062] Regarding the configuration according to claim 23, an The invention according to claim 24 is also characterized in that the first mounting means is constituted of a male screw part formed on the upper mounting member, a cylindrical member having a female screw formed in an inner surface, the female screw enabling

to be screwed to the male screw, and an inner flange which is formed integrally with the cylindrical member, forms a hole permitting the passage of the maxillary fossa model, and can make contact with the periphery of the pedestal of the maxillary fossa model, and the periphery of the pedestal of the maxillary fossa model is sandwiched between the upper mounting member and the inner flange by screwing the female screw to the male screw.

Please rewrite paragraph [0064] as follows.

[0064] Regarding the configuration according to claim 23 or 24, an The invention according to claim 25 is also characterized in that the second mounting means is constituted of a male screw part formed on the lower mounting member, a cylindrical member having a female screw formed in an inner surface, the female screw enabling to be screwed to the male screw, and an inner flange which is formed integrally with the cylindrical member, forms a hole permitting the passage of the mandibular condyle model, and can make contact with the periphery of the pedestal of the mandibular condyle model, and the periphery of the pedestal of the mandibular condyle model is sandwiched between the lower mounting member and the inner flange by screwing the female screw to the male screw.

Please rewrite paragraph [0066] as follows.

[0066] Regarding the configuration according to claim 23 or 25, an The invention according to claim 26 is <u>further</u> characterized in that the first mounting means comprises a ring-shaped part which is formed on an end of the upper mounting member and has an inner concave part permitting the insertion of the pedestal of the maxillary fossa model, and a fixing screw which can laterally penetrate the ring-shaped part while being connected to the ring-shaped part by screwing, and has an end capable of being screwed inward or in contact with the side of the pedestal of the maxillary fossa model.

Please rewrite paragraph [0068] as follows.

[0068] Regarding the configuration according to claim 23 or 24, an The invention according to claim 27 is also characterized in that the second mounting means comprises a ring-shaped part which is formed on an end of the lower mounting member and has an inner concave part permitting the insertion of the pedestal of the mandibular condyle model, and a fixing screw which can laterally penetrate the ring-shaped part while being connected to the ring-shaped part by screwing, and has an end capable of being screwed inward or in contact with the side of the pedestal of the mandibular condyle model.

Please rewrite paragraph [0070] as follows.

[0070] Regarding the configuration according to any one of claims 23 to 27, an The invention according to claim 28 is also characterized by further comprising upper positioning means for regulating the position of the pedestal of the maxillary fossa model relative to the upper mounting part.

Please rewrite paragraph [0072] as follows.

[0072] Regarding the configuration according to any one of claims 23 to 28, an The invention according to claim 29 is also characterized by further comprising lower positioning means for regulating the position of the pedestal of the mandibular condyle model relative to the lower mounting part.

Please rewrite paragraph [0073] as follows.

[0073] According to the present invention, it is possible to readily adjust a direction when mounting the mandibular condyle model on the upper lower bow-shaped part.

Please rewrite paragraph [0074] as follows.

[0074] Regarding the configuration according to any one of claims 19 to 29, an The invention according to claim 30 is also characterized by further comprising position adjusting means for laterally adjusting the position of at least one of the artificial condyle and the artificial articular fossa.

Please rewrite paragraph [0076] as follows.

[0076] Regarding the configuration according to any one of claims 19 to 30, an In addition, the invention according to claim 31 is characterized by further comprising a face bow including a face bow body which is used for reproducing the positional relationship between the temporomandibular joint and an occlusion plane on the occludator and has a pair of right and left legs stretching symmetrically, characterized in that at least the right and left legs are made of a material permitting the passage of a light beam used in the CT device, and at least one marking member is provided on an end of each of the right and left legs, the marking member being made of a material not permitting the passage of the light beam.

Please rewrite paragraph [0080] as follows.

[0080] Regarding the configuration according to claim 31, an The invention according to claim 32 is characterized in that the face bow comprises a nose piece which is supported by the face bow body and brought into contact with a hollow in the upper part of the nose of a patient, and the nose piece comprises a position adjusting mechanism capable of adjusting a position at least in the vertical direction and the longitudinal direction with respect to the face bow body.

Please rewrite paragraph [0082] as follows.

[0082] Regarding the configuration according to claim 31 or 32, an The invention according to claim 33 is <u>further</u> characterized in that the face bow body comprises a level.

Please rewrite paragraph [0084] as follows.

[0084] Regarding the configuration according to any one of claims 31 to 33, an The invention according to claim 34 is characterized in that the marking member is disposed on a position presumed to be laterally opposed to the center of the mandibular condyle of a patient.

Please rewrite paragraph [0085] as follows.

[0085] Regarding the configuration according to any one of claims 31 to 34, an The invention according to claim 35 is also characterized by further comprising an ear rod on an end of the leg in the face bow, the ear rod being inserted into an external auditory meatus of a patient, and each of the right and left sides of the occludator has an insertion hole for the insertion of the ear rod.

Please rewrite paragraph [0086] as follows.

Regarding the configuration according to claims 31 to 34, an The invention according to claim 36 comprising also comprises a headgear fixed on the head of a target person, characterized in that the head gear comprises right and left connecting parts for temporarily connecting the right and left ends of the face bow and connection position adjusting means for adjusting the position of the connecting part to a predetermined position.

Please rewrite paragraph [0089] as follows.

[0089] Regarding the configuration according to claim 36, an The invention according to claim 37 is characterized in that the headgear comprises fixing means for temporarily fixing the headgear to the CT device.

Please rewrite paragraph [0091] as follows.

[0091] Regarding the configuration according to any one of claims 19 to 37, an The invention according to claim 38 is characterized by comprising a an occlusion confirming system, characterized in that the system comprises a CT device for photographing a temporomandibular joint of a target person, a stereolithography machine for forming a solid model of the temporomandibular joint on a basis of three-dimensional image data of the temporomandibular joint specified by image information photographed by the CT device, and an occludator including a lower bow-shaped part for mounting a lower jaw tooth mold, an upper bow-shaped part for mounting an upper jaw tooth mold, and right and left joints for connecting the lower bow-shaped part and the upper bow-shaped part, the joint comprises an artificial condyle which is mounted on the lower bow-shaped part and protrudes upward and

an artificial articular fossa which is mounted on the upper bow-shaped part and is opposed to the artificial condyle from above, and at least one of the artificial condyle and the artificial articular fossa is constituted of the solid model formed by the stereolithography machine, and a database for storing ideal model information about a temporomandibular joint condyle, is characterized by further comprising data correcting means for correcting three-dimensional data on the temporomandibular joint condyle specified by image information photographed by the CT device such that the contour of the temporomandibular joint condyle specified by the image information photographed by the CT device is identical to a contour protruding closer to an ideal model, when a comparison is made between the coutour of the temporomandibular joint condyle specified by the image information photographed by the CT device and the corresponding ideal model on the database and it is decided that the temporomandibular joint condyle wears more than a predetermined degree.

#### Please rewrite paragraph [0094] as follows.

[0094] An The invention according to claim 39 also provides a temporomandibular joint reproducing system characterized by comprising a CT device for photographing a temporomandibular joint of a target person, and a stereolithography machine for forming a solid model of a temporomandibular joint on the basis of three-dimensional data of the temporomandibular joint specified by image information photographed by the CT device , characterized by further comprising a face bow including a face bow body which is used for reproducing the positional relationship between the temporomandibular joint and an occlusion plane on the occludator and has a pair of right and left legs stretching symmetrically, characterized in that at least the right and left legs are made of a material permitting the passage of a light beam used in the CT device, a marking member is provided on an end of each of the right and left legs on a position presumed to be laterally opposed to the center of the mandibular condyle of a patient, the marking member being made of a material not permitting the passage of the light beam, and a forming area for stereolithography is specified according to the position of the photographed marking member.

Please delete paragraphs [0095] to [00100].

Please rewrite paragraph [00162] as follows.

[00162] As shown in Figures 1 and 3, the lower joint 3 3A is constituted of a lower mounting member 13, the mandibular condyle model 14, and a mounting nut 15 constituting a cylindrical member. The lower mounting member 13 is constituted of a cylindrical member and is supported by a horizontal part 6A of the gate part 6 so as to move only laterally along the upper surface of the horizontal part 6A. The mechanism movable only in the lateral direction is configured by providing, e.g., a guide groove 16 which laterally stretches on the lower surface of the gate part 6 and a guide 17 which is fit into and guided by the guide groove 16 on the lower surface of the lower mounting member 13.

Please rewrite paragraph [00163] as follows.

[00163] Moreover, the lower mounting member 13 has a female tapped hole 18 laterally penetrating in parallel with the horizontal part 8A 6A. The shaft of a screw 19 is screwed into the female tapped hole 18. The screw 19 is rotationally supported with a bearing or the like by a rising part 20 provided on the horizontal part 8A 6A. Forward/reverse rotations of the screw 19 can adjust the position of the lower mounting member 13 in the lateral direction. The end of the shaft of the screw 19 is also rotationally supported by the horizontal part 8A 6A.

Please rewrite paragraph [00208] as follows.

[00208] Moreover, the nose piece 71 and the bite fork 72 are supported by the horizontal central plate 77. The front side and back side of the U-shaped part of the bite fork 72 are serrated and thus a material for sampling occlusion can readily stick to the front and back sides.